

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	41	(lubricant or lubricat\$4) and (low adj phosphorus) and (low adj sulfur or low adj sulphur)	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:13
S2	0	S1 and (antiwear or sulphurize adj olefin) and (dispersant or succinimide) and (detergent or salixarates or salicylate or saligenin or glyoxylate) and diesel and (antioxidant or hindered adj phenol or amine adj antioxidant) and sulphated adj ash	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:17
S3	21	S1 and diesel	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:18
S4	0	S2 and (compression adj ignition)	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:18
S5	0	S2 and (compression adj ignited)	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:19
S6	92	(lubricant or lubricat\$4) and (low adj phosphorus) and (low adj sulfur or low adj sulphur)	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:19
S7	4	S6 and (antiwear or sulphurize adj olefin) and (dispersant or succinimide) and (detergent or salixarates or salicylate or saligenin or glyoxylate) and diesel and (antioxidant or hindered adj phenol or amine adj antioxidant) and sulphated adj ash	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:19
S8	4	S6 and (antiwear or sulfurize adj olefin) and (dispersant or succinimide) and (detergent or salixarates or salicylate or saligenin or glyoxylate) and diesel and (antioxidant or hindered adj phenol or amine adj antioxidant) and sulphated adj ash	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:20
S9	0	S8 and ester near phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:21
S10	4	S8 and ester	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:21
S11	69	(lubricant or lubricat\$4) and (low adj phosphorus) and (low adj sulfur or low adj sulphur) and diesel	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:28
S12	64	(lubricant or lubricat\$4) and (low adj phosphorus) and (low adj sulfur or low adj sulphur) and diesel and ash	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/20 16:32

S13	3	"200309972"	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:36
S14	4	"2002018521"	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:40
S15	1	"5102566"	EPO; JPO; DERWENT	OR	ON	2008/05/20 16:42
S16	62	"5102566"	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 08:06
S17	56	S16 and succinic	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 08:06
S18	48	S16 and succinimide	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 08:06
S19	0	S18 and hinder adj phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:07
S20	0	S18 and ester adj phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:08
S21	47	S18 and phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:08
S22	47	S21 and ester	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:08
S23	47	S22 and detergent	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:08
S24	36	S23 and (salicylate or salixarate or saligenin)	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:09
S25	1	S24 and sump	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:12
S26	1884	sump and lubricat\$4 and diesel	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:12
S27	110	S26 and sulfur and ash and phosphorus	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:13
S28	0	S27 and ester adj phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:20
S29	2250	ester adj phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:20
S30	689	ester adj phenol and (lubricant or lubricat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:20
S31	293	S30 and antioxidant	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:20
S32	27	S31 and diesel	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:21
S33	0	S32 and hindered adj ester adj phenol adj antioxidant	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:23
S34	0	hindered adj ester adj phenol adj antioxidant	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:23
S35	0	hindered adj ester adj phenol	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:23
S36	7	"3791985"	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:34
S37	1	S36 and S29	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 09:34

S38	73	WO-2004096957-\$.DID. OR US-4582618-\$.DID. OR US-5006271-\$.DID. OR US-5719107-\$.DID. OR US-2227692-\$.DID. OR US-4957651-\$.DID. OR US-5005000-\$.DID. OR US-4234435-\$.DID. OR US-3172892-\$.DID. OR US-3381022-\$.DID. OR US-4654403-\$.DID. OR US-2501731-\$.DID. OR US-2616905-\$.DID. OR US-2616911-\$.DID. OR US-2616925-\$.DID. OR US-2777874-\$.DID. OR US-3256186-\$.DID. OR US-3384585-\$.DID. OR US-3365396-\$.DID. OR US-3320162-\$.DID. OR US-3318809-\$.DID. OR US-3488284-\$.DID. OR US-3629109-\$.DID. OR US-6310009-\$.DID. OR US-6200936-\$.DID. OR WO-0156968-\$.DID. OR US-2933520-\$.DID. OR US-3954808-\$.DID. OR US-6310011-\$.DID. OR US-4719023-\$.DID. OR US-3372116-\$.DID. OR US-6569818-\$.DID. OR US-6107257-\$.DID. OR US-6107258-\$.DID. OR WO-0198387-\$.DID. OR US-6544935-\$.DID. OR US-8787587-\$.DID. OR WO-20041096957-\$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 10:23
S39	4	S38 and low adj phosphorus	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 10:32
S40	3	S39 and olefin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 10:39
S41	689	ester adj phenol and (lubricant or lubricat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 14:14
S42	18	S41 and phenol near antioxidant	US-PGPUB; USPAT; USOCR	OR	ON	2008/05/21 14:14
S43	25	WO-2004096957-\$.DID. OR WO-03022963-\$.DID. OR US-6583092-\$.DID. OR EP-1266952-\$.DID. OR US-4582618-\$.DID. OR WO-03104620-\$.DID. OR US-5006271-\$.DID. OR US-5719107-\$.DID. OR US-2227692-\$.DID. OR US-2937992-\$.DID. OR US-3909425-\$.DID. OR JP-63061090-\$.DID. OR US-4960528-\$.DID. OR US-3090425-\$.DID. OR WO-1266952-\$.DID. OR US-2669520-\$.DID. OR EP-03104620-\$.DID. OR EP-03104620D-\$.DID. OR WO-63061090-\$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:20

S44	0	S43 and ester adj phenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:21
S45	9	S43 and phenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:22
S46	1	S43 and ester near phenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:23
S47	16	"ARTMAN, DIANE".in.; "ABRAHAM, WILLIAM". in.;""CARRICK, VIRGINIA""in.;" "VILARDO, JONATHAN".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:26
S48	0	"ARTMAN, DIANE". in.;""ABRAHAM, WILLIAM". in.;""CARRICK, VIRGINIA". in.;""VILARDO, JONATHAN".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:26
S49	4	"ARTMAN, DIANE".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:27
S50	146	"ABRAHAM, WILLIAM".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:27
S51	45	"CARRICK, VIRGINIA".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:27
S52	16	"VILARDO, JONATHAN".in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:28
S53	178	S49 or S50 or S51 or S52	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:28
S54	4	S53 and ester near phenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:28
S55	36	S53 and phosphorus and sulfur and antiwear and dispersant and ash	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 14:30
S56	9	S53 and low adj phosphorus and low adj sulfur and antiwear and dispersant and ash	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:07
S57	1039	"LUBRIZOL CORPORATION".as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:29

S58	10	S57 and ester near phenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:29
S59	10	S67 and low adj phosphorus and low adj sulfur and antiwear and dispersant and ash	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:31
S60	68	(508/278).OCLS	US-PGPUB; USPAT; USOCR	OR	OFF	2008/05/21 15:43
S61	0	S60 and low adj phosphorus and low adj sulfur and antiwear and dispersant and ash	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:44
S62	1	S60 and phosphorus and sulfur and antiwear and dispersant and ash	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/21 15:44
S63	6	"3,791,985"	USPAT	OR	OFF	2009/07/28 13:32
S64	15	("2758086" "3412118" "3791985" "3951829" "4085132" "4889883" "4917809").PN. OR ("5167844"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/07/28 13:48
S65	1	"6583092".pn.	USPAT	OR	OFF	2009/07/31 14:04
S66	1	S65 and olefin	USPAT	OR	OFF	2009/07/31 14:17
S67	0	S66 and sulfurized adj olefin	USPAT	OR	OFF	2009/07/31 14:17
S68	236	sulfurized adj olefin	USPAT	OR	OFF	2009/07/31 14:18
S69	92	S68 and (diesel or compression adj ignit\$4)	USPAT	OR	OFF	2009/07/31 14:18
S70	40	S69 and sulfur and phosphorus and ash	USPAT	OR	OFF	2009/07/31 14:18
S71	38	S70 and @ad<"20030424"	USPAT	OR	OFF	2009/07/31 14:19
S72	475	sulfurized adj olefin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/07/31 14:19
S73	185	S72 and (diesel or compression adj ignit\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 14:20
S74	93	S73 and sulfur and phosphorus and (ash or sash or sulfated ash)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 14:20

S75	93	S74 and ad<"20030424"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 14:21
S76	49	S74 and @ad<"20030424"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 14:23
S77	2	((("20030195128") or ("20020053334")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/07/31 14:38
S78	2	S77 and sulfur and phosphorus and ash	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 14:39
S79	186	antiwear with sulfurized adj olefin	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 14:58
S80	115	S79 and @ad<"20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2009/07/31 14:58
S81	56	S80 and (diesel or compression adj ignit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 14:58
S82	56	S81 and dispersant	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 14:59
S83	38	S82 and overbased	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:00
S84	34	S83 and succinimide	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:01
S85	32	S84 and antioxidant	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:01
S86	30	S85 and (dithiophosphate or zddp)	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:04
S87	0	S86 and (dithiophosphate or zddp) near secondary	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:07
S88	12	S86 and (dithiophosphate or zddp) with secondary	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:07
S89	82	(dithiophosphate or zddp) near secondary	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:09
S90	42	S89 and @ad<"20030424"	US-PGPUB; USPAT; USOCR	OR	ON	2009/07/31 15:09
S91	28	S90 and (diesel or compression adj ignit\$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2009/07/31 15:11
S92	4	S91 and (sash or sulfated adj ash)	US-PGPUB; USPAT; USOCR	OR	OFF	2009/07/31 15:19
S93	506	(sash or sulfated adj ash) and (diesel or compression adj ignit \$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 15:20
S94	183	S93 and @ad<"20030424"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 15:21

S95	5	S94 and (dithiophosphate or zddp) near secondary	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 15:21
S96	113	"4,582,618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 16:42
S97	79	S96 and diesel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 16:42
S98	2	"4582618".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 16:42
S99	1	S98 and diesel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/31 16:43
S100	597	low adj (sulfur or phosphorus).ab.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:42
S101	69	S100 and low adj ash	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:42
S102	40	S101 and (diesel or compression adj ignition or compression adj ignited)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:42
S103	16	S102 and @ad< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:43
S104	148	low adj sulfur and low adj phosphorus	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:48
S105	96	S104 and (diesel or compression near engine)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:49
S106	18	S105 and @ad< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:49
S107	14	S106 and ash	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:49
S108	7	S107 not S103	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:50
S109	1536	diesel and sulfur and phosphorus and ash	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:51
S110	916	S109 and "508".clas.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:51
S111	461	S110 and @ad< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:51
S112	64	S111 and low adj (sulfur or phosphorus)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:52
S113	59	S112 not S103	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:52
S114	53	S113 not S106	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 08:52

S115	31	low adj phosphorus and low adj (sulfur or sulphur) and lubricant	FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/02/11 09:26
S116	1	S115 and @pd< "20030424"	FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/02/11 09:26
S117	1	"20020053334".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/11 09:35
S118	1	"2002053888"	JPO	OR	ON	2010/02/11 09:42
S119	3	("2003022963").PN.	DERWENT	OR	OFF	2010/02/12 06:54
S120	14508	additive and (diesel or compression adj ignition or compression adj ignited)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:34
S121	41	S120 and sulfurized adj olefin and succinimide and (zddp or dialkyldithiophosphate)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:35
S122	8	S121 and @pd< "20030424"	USPAT	OR	OFF	2010/02/12 07:35
S123	8	S121 and @pd< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:36
S124	14	S121 and @ad< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:36
S125	58	"508".clas. and sulfurized adj olefin and succinimide and (zddp or dialkyldithiophosphate)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:46
S126	12	S125 and @pd< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:46
S127	7867935	"12" not S124	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:46
S128	5	S126 not S124	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:46
S129	178	(compression adj engine or diesel) and sulfurized adj olefin	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:55
S130	72	S129 and @pd< "20030424"	USPAT	OR	OFF	2010/02/12 07:55
S131	90	S129 and @pd< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:55
S132	82	S131 not S124	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:56
S133	82	S132 not S128	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 07:56
S134	117	diesel and antiwear near (zddp or dithiophosphate)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:02
S135	74	S134 and @pd< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:02
S136	6	S135 and low adj (phosphorus or sulfur)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:02

S137	425	diesel and antiwear with (zddp or dithiophosphate)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:05
S138	177	S137 and @pd< "20030424"	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:05
S139	24	S138 and low adj (phosphorus or sulfur)	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:05
S140	18	S139 not S135	US-PGPUB; USPAT; USOCR	OR	OFF	2010/02/12 10:06

9/ 9/ 2010 10:06:35 AM

H:\ East\ Workspaces\ Diesel lubricant 10554481.wsp